

REMARKS

This divisional application contains claims 19-29. Only a minor amendment to claim 20 has been made to correct a typographical error. Therefor, no new issues have been raised.

In the Final Office Action dated June 14, 2005, claims 19-29 were rejected under 35 U.S.C. 103(a) as being unpatentable over a combination of Behin (U.S. 6,593,677) and McClelland (U.S. 6,201,629) and a newly cited reference, McDonald (U.S. 5,774,604).

As previously pointed out, according to claim 29, a micromirror unit comprises an inner frame 220 (see Figs. 3A, 3B and 4A-4C), an outer frame 230, a mirror forming base 210, an inner torsion connector 240, and an outer torsion connector 250. The inner frame 220 includes a first portion 221, a second portion 222, and an insulating layer 260 sandwiched between the first portion 221 and the second portion 222. The outer frame 230 surrounds the inner frame 220. The outer frame 230 includes a first portion 231, a second portion 234, and an insulating layer 260 sandwiched between the first portion 231 and the second portion 234 of the outer frame 230. The mirror forming base 210 is provided with a mirror surface 211 and is surrounded by the inner frame 220. The inner torsion connector 240 connects the first portion 221 of the inner frame 220 to the mirror forming base 210. The outer torsion connector 250 connects the inner frame 220 to the outer frame 230 and defines an axis X3 about which the inner frame 220 and the mirror forming base 210 are rotated relative to the outer frame 230. The outer torsion connector has a width measured in a direction which is parallel to the mirror surface and perpendicular to the axis of the outer torsion connector 250. The width of the outer torsion connector 250 is relatively great at a connecting portion to the

inner frame 220 and becomes gradually smaller from the inner frame 220 toward the outer frame 230. The outer torsion connector 250 comprises a plurality of torsion bars 251, 252 connected to a same side of the inner frame. At least one (251) of the torsion bars connects the first portion 221 of the inner frame 220 to the first portion 231 of the outer frame 230 to provide a first electrical conducting path. At least another (252) of the torsion bars connects the second portion 222 of the inner frame 220 to the second portion 234 of the outer frame 230 to provide a second electrical conducting path which is electrically separate from the first electrical conducting path. The distinguishing features are emphasized by underlining, and independent claim 19 also shares similar distinguishing features.

It is meaningless for the plurality of torsion bars 251, 252 to provide electrically separate conducting paths unless the micromirror unit includes both an inner frame and an outer frame, wherein the inner frame 220 includes a first portion 221, a second portion 222, and an insulating layer 260 sandwiched between the first portion 221 and the second portion 222, and wherein the outer frame 230 includes a first portion 231, a second portion 234, and an insulating layer 260 sandwiched between the first portion 231 and the second portion 234 of the outer frame 230.

In the final Office Action, the Examiner admits that U.S. Patent No. 6,593,677 to Behin et al. combined with U.S. Patent 6,201,629 to McClelland et al. fails to disclose or suggest the above-underlined features of the present invention, but takes the position that U.S. Patent 5,774,604 to McDonald provides the missing features. Specifically, it is stated that McDonald teaches a plurality

of torsion bars on the same side of the frame (Fig. 1c) capable of providing two electrically separate conductive paths.

However, in McDonald the unnumbered torsion bars only connect a reflective surface structure 10 (corresponding to the present claimed mirror-forming base) to a support or frame. McDonald fails to disclose an inner frame connected to an outer frame by a plurality of torsion bars. Further, McDonald even fails to disclose an inner frame which includes a first portion, a second portion, and an insulating layer sandwiched between the first portion and the second portion. Unless the inner frame (or the reflective surface structure 10 of McDonald) has at least two electrically insulated portions, it is meaningless for the different torsion bars of McDonald to provide two electrically different conductive paths.

Therefore, the Examiner's holding that the torsion bars on the same side of the frame (Fig. 1c) in McDonald are capable of providing two electrically separate conductive paths seems erroneous and is totally improper. It is suggested that the Examiner's attention be drawn to the claimed limitations that at least one (251) of the torsion bars connects the first portion 221 of the inner frame 220 to the first portion 231 of the outer frame 230 to provide a first electrical conducting path. At least another (252) of the torsion bars connects the second portion 222 of the inner frame 220 to the second portion 234 of the outer frame 230 to provide a second electrical conducting path which is electrically separate from the first electrical conducting path.

As previously admitted by the Examiner, McClelland and Behin fail to teach or suggest the present claimed micromirror unit. In an effort to allege obviousness, the Office Action has now

combined McDonald with those two references. There is no reason to make such a three-way combination absent first reading Applicants' specification. No teaching or suggestion is found in the references themselves that would lead one to such a combination.

In view of the above remarks, Applicants believe claims 19-29 to be patentable over the prior art cited and early action towards allowance thereof is respectfully requested.

The Examiner is urged to contact Applicants' attorney to schedule a personal interview in this application, in the event that the Examiner does not find the present claims to be allowable.

Please charge any fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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